Index of Claims

| Application No. | Applicant(s)    |
|-----------------|-----------------|
| 10/684,595      | WATANABE ET AL. |
| Examiner        | Art Unit        |
| D. S. Nakarani  | 1773            |

| √ | Rejected | - |  |
|---|----------|---|--|
| = | Allowed  | + |  |

| _ | (Through numeral)<br>Cancelled |
|---|--------------------------------|
| + | Restricted                     |

| N | Non-Elected  |
|---|--------------|
| _ | Interference |

| A | Appeal   |
|---|----------|
| 0 | Objected |

| Claim Date |          |          |          |                         | Claim Date      |               |                                          |          |           |               |          | CI            | aim    | Date            |               |          |              |          |       |       |          |                                              |          |          |          |          |          |                       |          |          |
|------------|----------|----------|----------|-------------------------|-----------------|---------------|------------------------------------------|----------|-----------|---------------|----------|---------------|--------|-----------------|---------------|----------|--------------|----------|-------|-------|----------|----------------------------------------------|----------|----------|----------|----------|----------|-----------------------|----------|----------|
|            |          | [,,]     |          |                         |                 |               |                                          |          |           |               | _        | T             |        |                 |               |          |              |          |       |       | FF.      |                                              |          |          |          | _        |          |                       |          |          |
| <u>ब</u>   | <u> </u> | ઙૢૻ      |          |                         |                 |               |                                          |          |           | Final         | Original |               |        |                 |               |          |              |          |       | Final | Original |                                              |          |          |          | l        |          |                       |          |          |
| iĒ         | Ę        | 1,5      |          |                         |                 | -             |                                          |          |           | 遣             | 훈        |               |        | ΙI              |               | -        | 1 .          |          |       | 造     | jrig     |                                              |          |          |          | ۱.       |          |                       |          |          |
|            | ٦        | ا ا      |          |                         |                 |               |                                          |          |           |               | J        |               |        |                 |               |          |              |          |       |       | U        |                                              |          |          |          |          |          | ١,                    |          |          |
|            | 1        | 1        | $\neg$   | $\top$                  |                 | $\neg \vdash$ | 1                                        |          |           |               | 51       | $\neg$        |        | $\Box$          |               | 1        |              |          |       |       | 101      |                                              |          |          |          |          |          | $\Box$                |          |          |
|            | 2        | 1        |          | $\sqcap$                |                 |               | 1                                        |          |           |               | 52       | $\neg \vdash$ |        |                 |               | 7        |              |          |       |       | 102      |                                              |          |          |          | Г        |          | П                     |          |          |
|            | 3        | 1        |          | $1 \Box$                |                 |               | $\sqcap$                                 |          |           |               | 53       |               | T      | П               |               | 1        | T            |          |       |       | 103      |                                              |          |          |          |          |          |                       |          |          |
|            | 4        | 1        |          | T                       |                 |               |                                          |          |           |               | 54       |               |        | $\top$          |               |          |              |          |       |       | 104      | ·                                            | T        |          |          |          |          | П                     |          |          |
|            | 5        | 1        |          | $\top$                  | $\Box$          | $\top$        | 1-1                                      |          |           |               | 55       |               | $\top$ |                 | $\neg$        | $\top$   |              |          |       |       | 105      | $\vdash$                                     |          |          |          |          | $\Box$   | П                     |          |          |
|            |          | 1        |          | $\top$                  | $\Box$          | 十             |                                          |          |           |               | 56       |               | $\top$ | $\Box$          | $\neg$        | 十一       | H            | П        |       |       | 106      | <del> </del>                                 | П        |          | -        |          | П        | П                     | $\neg$   |          |
|            |          | 1        |          |                         | H               | 1             | 11                                       |          |           |               | 57       | T             |        |                 | 1             | <b>-</b> | 1            | $\dashv$ |       |       | 107      | 1                                            |          |          |          |          | $\vdash$ | $\Box$                | $\neg$   |          |
|            |          | 1        | $\neg$   | $\top$                  | $\vdash$        | 十             | $\top$                                   |          |           |               | 58       | $\top$        |        | $\vdash$        | _             | 1        | $\vdash$     | $\dashv$ |       |       | 108      |                                              |          |          |          |          |          |                       |          |          |
|            |          |          | $\neg$   | $\top$                  | $\vdash$        | $\top$        | 1                                        |          |           |               | 59       |               | +      | $\Box$          | $\dashv$      | $\top$   | $\vdash$     | Н        |       |       | 109      | $\vdash$                                     | П        | Н        |          | $\vdash$ |          | $\Box$                | $\dashv$ |          |
|            |          |          | _        | $\dagger \exists$       | $\vdash$        | $\top$        | 1-1                                      |          |           |               | 60       | -             | $\top$ | ╀┯┪             | $\dashv$      | +        | $\vdash$     | $\dashv$ |       |       | 110      | $\vdash$                                     | Н        | $\vdash$ | _        | $\vdash$ | $\vdash$ | $\vdash$              | $\dashv$ |          |
| $\vdash$   |          |          | $\dashv$ | $\Box$                  | $\vdash$        | +             | 1-1                                      | -        |           |               | 61       |               | +      | $\vdash$        | $\dashv$      | +        |              | Н        |       |       | 111      | H                                            | Н        | Н        |          |          | $\vdash$ | $\vdash$              | $\dashv$ |          |
| $\vdash$   |          |          | +        | 1                       | $\vdash$        | +             | + +                                      | $\dashv$ |           | -             | 62       |               | +      | $\vdash \vdash$ | +             | +-       | H            | $\dashv$ |       |       | 112      | $\vdash$                                     | H        | H        | $\vdash$ | ╁╌       | Н        | $\vdash$              | $\dashv$ |          |
| <u> </u>   |          |          | +        | +                       | $\vdash \vdash$ | -             | ╁                                        |          |           |               | 63       |               | +      | $\vdash \vdash$ | $\dashv$      | +        | $\vdash$     | $\dashv$ |       |       | 113      | $\vdash$                                     | $\vdash$ | Н        | $\vdash$ | $\vdash$ | Н        | $\vdash \vdash$       | $\dashv$ |          |
| <b></b>    |          |          | $\dashv$ | +                       | $\vdash$        | $\dashv$      | ╁┤                                       | -        |           |               | 64       | $\dashv$      | +      | ╅               | $\dashv$      | +        | +            | $\dashv$ |       |       | 114      | Η-                                           | $\vdash$ | $\vdash$ | $\vdash$ | $\vdash$ | $\vdash$ | $\vdash$              | $\dashv$ |          |
|            |          |          | +        | +                       | $\vdash$        | +             | +                                        | $\dashv$ |           |               | 65       |               | +      | +               | $\dashv$      | +        | +            | $\vdash$ |       |       | 115      |                                              | $\vdash$ | Н        | $\vdash$ | $\vdash$ | $\vdash$ | $\vdash$              | $\dashv$ |          |
|            |          |          | +        | +                       | $\vdash +$      | +             | ╅┩                                       |          |           |               | 66       | -+-           | +-     | $\vdash$        | +             | +        | $\vdash$     |          |       |       | 116      | $\vdash$                                     | Н        | $\vdash$ | -        | -        | $\vdash$ | $\vdash\vdash$        | -        | $\dashv$ |
|            |          |          |          | ╅┥                      | $\vdash \vdash$ | - -           | ╅                                        |          |           |               | 67       |               | +      | ╁─┤             | -+-           | +        | 1-1          | $\dashv$ |       |       | 117      | $\vdash$                                     | $\vdash$ | Н        | $\vdash$ | $\vdash$ | $\vdash$ | $\vdash\vdash$        |          |          |
| -          |          |          | +        | +                       | $\dashv$        |               | +                                        |          |           | $\dashv$      | 68       | +             | +      | $\vdash$        | +             | +        | $\vdash$     | $\dashv$ |       |       | 118      | $\vdash$                                     | $\vdash$ | $\vdash$ | $\vdash$ | -        | $\vdash$ | $\vdash \vdash$       | $\dashv$ | _        |
|            | 19       | 1        |          | +1                      |                 | +             | +                                        |          |           | $\rightarrow$ |          |               | +      | $\vdash$        | -             |          | $\vdash$     | $\dashv$ |       |       | 118      | ┡                                            | Н        | -        |          | $\vdash$ | H        | $\vdash$              | -        |          |
|            |          | 1        | -        | 1 1                     | +               | +             |                                          |          |           | -             | 69<br>70 |               |        | $\vdash$        |               | 1        | Н            | $\dashv$ |       |       | 119      | <u>.                                    </u> | -        | Н        |          | _        | $\vdash$ | ⊢                     | -        | _        |
|            | 20       |          |          | 1-1                     | +               | +             | +                                        |          |           |               |          |               |        | $\vdash$        |               | -        | -            |          |       |       | 120      | <u> </u>                                     | Н        | Н        |          | L        | Н        | $\vdash$              | $\dashv$ |          |
|            | 21       | N        |          | ╀                       | $\dashv$        |               | +                                        | :        |           |               | 71       | -             |        | $\sqcup$        | +             | +        | Н            |          |       |       | 121      | _                                            | Щ        | _        |          | L.       | Щ        | $\vdash$              | $\dashv$ | _        |
|            | 22       | N        |          | +                       |                 |               | +                                        | —:       |           | _             | 72       | -             |        | $\vdash$        | $\perp$       | +        | $\vdash$     |          |       |       | 122      | <u> </u>                                     | Щ        |          | _        | Ь.       | Ш        | ${oldsymbol{\sqcup}}$ | $\dashv$ | _        |
|            | 23       | N        | $\perp$  | $\sqcup$                | $\dashv$        |               | $\downarrow \downarrow \downarrow$       | —        |           |               | 73       |               |        | $\perp$         |               | $\perp$  | $\sqcup$     |          |       |       | 123      | _                                            | Ш        |          |          | _        | Ш        | $\vdash$              | _        | _        |
| ļi         | 24       |          |          | $\vdash$                | $\perp$         | +             | +                                        |          |           |               | 74       | -             | +      | $\vdash$        | _             | +-       | ┦            |          |       |       | 124      |                                              | Ш        | Ш        |          | Щ        | Ш        | $\mapsto$             | _        | _        |
|            | 25       | $\Box$   |          | $\vdash$                |                 | _             | +                                        | —        |           |               | 75       |               |        | $\vdash$        |               |          | 11           |          |       |       | 125      |                                              |          |          |          | _        | Ш        | $\sqcup$              | _        |          |
|            | 26       | $\dashv$ |          | +                       | _               |               | $\perp \perp$                            | _        |           |               | 76       |               | -      | $\sqcup$        | _             | ┿-       | $\sqcup$     |          |       |       | 126      | _                                            | Щ        |          |          | _        | Щ        | $\sqcup$              |          |          |
|            | 27       |          | _        | $\perp$                 |                 |               | 11                                       |          |           |               | 77       |               | $\bot$ | Ш               | _             |          | $\sqcup$     |          |       |       | 127      |                                              | Ш        |          |          |          | Ш        | $\Box$                |          |          |
|            | 28       |          |          | $\downarrow \downarrow$ | _               |               | 1                                        | _        |           |               | 78       |               |        | $\sqcup$        | $\perp$       | 4_       | $\sqcup$     | _        |       |       | 128      | L                                            | Ш        | Ш        |          |          | Ш        | Ш                     | _        |          |
|            | 29       |          |          | 11                      |                 | $\bot$        | $\bot$                                   | _        |           |               | 79       |               |        | Ш               |               |          |              | $\perp$  |       |       | 129      |                                              | Ш        |          |          | _        |          | Ш                     |          |          |
|            | 30       | $\Box$   |          | $\sqcup$                |                 | $\bot$        | 11                                       | _        |           |               | 80       |               |        | $\sqcup$        |               | <u> </u> | Ш            | _        |       |       | 130      | L                                            |          |          |          |          | Ш        | Ш                     |          |          |
|            | 31       | $\Box$   | _        | $\sqcup$                |                 |               | $\perp \! \! \perp \! \! \! \! \! \perp$ | _        |           |               | 81       | $\bot$        | _      | Ш               |               |          |              | $\Box$   |       |       | 131      |                                              | Ш        | Ш        |          |          | Ш        | Ц                     | $\sqcup$ |          |
|            | 32       |          |          | $\sqcup$                |                 |               | $\perp$                                  |          |           |               | 82       |               |        | Ш               |               |          | $\sqcup$     |          |       |       | 132      | ·                                            | Ш        |          |          |          | Ш        | Ш                     | _        |          |
|            | 33       |          |          | $\perp$                 |                 |               |                                          |          |           |               | 83       |               | Ш.     | Ш               |               |          |              |          |       |       | 133      |                                              | Ш        |          |          |          |          |                       |          |          |
|            | 34       |          |          | $oxed{oxed}$            |                 | $\perp$       | ot                                       |          |           |               | 84       |               |        | Ш               |               |          | Ш            |          |       | ]     | 134      |                                              | Ш        |          |          |          |          | $\Box$                | ]        |          |
|            | 35       |          | $\bot$   | $oxed{oxed}$            |                 |               | $oxed{oxed}$                             |          | [         |               | 85       |               |        | Ш               |               |          | $oxed{oxed}$ |          |       |       | 135      |                                              |          |          |          |          |          | $\Box$                | T        |          |
|            | 36       |          |          |                         | $\Box$          |               |                                          |          | <b></b> [ |               | 86       |               |        | Ш               | $oxed{\Box}$  |          | $\Box$       |          |       |       | 136      |                                              |          |          |          |          |          |                       |          |          |
|            | 37       |          |          |                         |                 | $\Box$        | $\Box$                                   |          |           |               | 87       |               |        |                 |               |          |              |          |       |       | 137      |                                              |          |          |          |          |          |                       | $\Box$   |          |
|            | 38       |          |          |                         |                 |               |                                          |          |           |               | 88       |               |        |                 |               | Ι        |              |          |       |       | 138      |                                              |          |          |          |          |          |                       |          |          |
|            | 39       |          |          |                         |                 |               |                                          |          |           |               | 89       |               | T      |                 |               |          |              |          |       |       | 139      |                                              | П        |          |          |          | П        | $\sqcap$              | $\neg$   |          |
|            | 40       |          |          |                         | $_{-}$ T        |               |                                          | _7:      | 1         |               | 90       |               |        |                 | 1             | T        | П            | $\neg$   |       |       | 140      |                                              | П        |          |          |          |          |                       | $\neg$   |          |
|            | 41       |          |          |                         | $\Box$          |               | П                                        |          |           |               | 91       |               | 1      | П               | $\neg \vdash$ | Т        | П            | $\neg$   |       |       | 141      |                                              | П        |          |          |          | П        | $\sqcap$              | $\neg$   |          |
|            | 42       | $\neg$   |          |                         |                 |               | T                                        |          |           |               | 92       | $\neg$        | 1      | П               |               | T        | П            | $\neg$   |       |       | 142      |                                              |          |          |          |          | $\sqcap$ | $\sqcap$              | $\neg$   | $\neg$   |
|            | 43       | $\neg$   | $\neg$   | $\Box$                  | $\neg \uparrow$ | $\top$        | $\top$                                   |          |           | 一             | 93       |               | $\top$ | П               | $\neg$        | Т        | П            | ヿ        |       |       | 143      |                                              | П        |          |          |          | П        | 一                     | ᅥ        | $\neg$   |
|            | 44       |          | $\neg$   | $\sqcap$                |                 |               | 7 1                                      | 1        |           |               | 94       | $\neg \vdash$ | $\top$ | $\Box$          | $\dashv$      | T        | $\dagger$    | $\neg$   |       |       | 144      |                                              | П        |          |          | П        | П        | $\sqcap$              | $\dashv$ | $\neg$   |
|            | 45       | 一        | _        | $T^{\dagger}$           | 一十              | 1             | 11                                       | -        |           | 一             | 95       | $\neg$        | $\top$ | П               | $\dashv$      | $\top$   | $\vdash$     | $\neg$   |       |       | 145      |                                              | $\vdash$ |          |          | $\vdash$ | Н        | $\sqcap$              | -        | $\neg$   |
|            | 46       | $\dashv$ |          | 1 1                     | _               | $\top$        | 1                                        | -        |           | $\neg$        | 96       | $\dashv$      |        |                 | $\dashv$      | T        |              | $\dashv$ |       |       | 146      | Н                                            | $\vdash$ | $\dashv$ | -        | $\dashv$ | $\vdash$ | $\dashv$              | $\dashv$ | _        |
|            | 47       | $\dashv$ | $\dashv$ | 1 1                     | _               | +             | ++                                       | -        | H         |               | 97       | 一             |        | $\vdash$        | $\dashv$      | +        | $\vdash$     |          |       |       | 147      | Н                                            | $\vdash$ | -        | $\vdash$ | $\vdash$ | $\vdash$ | $\dashv$              | $\dashv$ | _        |
|            | 48       |          | $\dashv$ | 1-1                     | $\dashv$        | +             | +-+                                      | -        | ii)       | $\dashv$      | 98       | <del></del>   | +-     | $\vdash$        | $\dashv$      | +        | $\vdash$     | $\dashv$ |       |       | 148      | Н                                            | $\vdash$ | $\dashv$ |          | -        | $\vdash$ | $\dashv$              | -        | _        |
| $\vdash$   | 49       | $\dashv$ | $\dashv$ | ╁╌┤                     | -               | +             | ╅                                        |          | ⊪         | _             | 99       | +             | +-     | $\vdash$        | -+-           | +        | $\vdash$     | $\dashv$ |       |       | 149      | Н                                            |          | $\dashv$ | -        | Н        | $\vdash$ | $\dashv$              | -        | $\dashv$ |
|            | 50       | -        | $\dashv$ | ╂╌╂                     | $\dashv$        |               | ╅╅                                       |          |           | -+            | 100      | $\dashv$      |        | $\vdash$        | $\dashv$      | +        | $\vdash$     | $\dashv$ |       |       | 150      | Н                                            | $\vdash$ | $\vdash$ | -        | $\vdash$ | $\vdash$ | $\dashv$              |          | $\dashv$ |
|            | JU       |          | 1        |                         | i_              |               |                                          | ::       | :::L      |               | 100      |               |        | $\perp \perp$   | 1.            | 1_       |              |          | ::::: |       | 100      | <u>.                                    </u> |          | 1        | . 1      | 1 1      | í I      | . 1                   | - 1      |          |